

# CONTENTS

ver 1.0

Getting Started .....	3
Specifications .....	5
Opening the Package .....	7
Installation .....	7
Important Safety Guidelines .....	7
Television Antenna Connection Protection .....	11
Product Browse .....	12
Display .....	12
Wall Mount .....	13
TV Info Explained .....	16
Source Explained .....	16
I/O Connector Definitions .....	18
Picture Quality of All Connections from Ok to Best .....	20
Quick Installation .....	21
Installation batteries of remote control .....	21
Connecting the AC Power Cord .....	22
Connecting Headphone Out Port .....	22
Connecting HDMI Port .....	23
Connecting VGA Port .....	25
Connecting Subwoofer Port .....	26
Connecting Component HD Port .....	26
Connecting AV Port .....	27
Connecting TV Tuner .....	27
For Analog Cable and Antenna Users .....	27
For Analog Cable and Antenna Users .....	28
For Set-top Box Users (including Digital Cable, Satellite, other video displaying	

devices) .....	28
<b>Using the X20.....</b>	<b>29</b>
Remote Control .....	29
Universal Remote Code and Support .....	30
OSD (On Screen Display Menu).....	37
TV input.....	39
AV inputs .....	42
YPbPr1 (Component), VGA-Y Pb Pr2, HDMI, HDCP inputs.....	45
VGA-PC input .....	47
DVI input.....	50
Rating Explained .....	52
<b>Other Information .....</b>	<b>54</b>
Cleaning the LCD TV .....	54
Warning .....	54
Troubleshooting.....	55
<b>Appendix .....</b>	<b>58</b>
FCC Compliance Statement .....	58
European Notice .....	59

# Getting Started

Congratulations on your SCEPTRE X20 20" LCD Television purchase. Thank you for your support of SCEPTRE and its LCD Television product line. The X20 is a precise electronic product and you should read the following instructions carefully to maximize its performance. It has passed regulatory safety certifications and you can be assured of the highest quality display with the utmost reliability. After you have finished reading the instructions, please also record the X20's part number and serial number as found on the label off the back of your LCD TV set in the space provided below. Please also store the manual in a safe place for future reference.

TV Display P/N:\_\_\_\_\_

TV Display S/N:\_\_\_\_\_

# Package Contents

Your SCEPTRE X20 package includes:

- TV Display x 1
- User manual x 1
- Warranty Card x 1
- Power Cord x 1
- HDMI/DVI Cable x 1
- Composite (RCA) Audio/Video Cable x 1
- Remote Control x 1
- Batteries x 2 (Size AAA)

# Specifications

Display panel	
Item	Illustration
Active Area / Screen Size	443.61 (H) x 249.41 (V)mm (diagonal 20.04 inches)
Aspect Ratio	Widescreen 16:9
Pixel Pitch	0.32475(H) x RGB x 0.32475 (V)mm
Max. of Pixels (Resolution)	HD (1366 x 768 pixels) resolution
Brightness	450 nits (Typical)
Contrast	700:1 (Typical)
Response Time	8ms (Typical)
Viewing Angle	Typical 160/140 Degree (Horizontal/Vertical)
Lamp Life of Backlight	> 50000hrs

TV Display	
Dimension	525(W) x 442(H) x 200(D) mm
Weight	8.1 +/- 1 kgs
Power input	100-240AVC, 50/60Hz, 1.3A max, 70W
Function	
(1)Video	
De-interlace	3D
Frame conversion	Yes
Frame recover	3:2, 2:2
Noise reducing core technology	3D
Aspect ratio	4:3, 16:9, zoom full, zoom full sub-title
Color enhancement	Vivid color, Skin tone, G,B
Sharpness	DLTI/DCTI
Gamma	10bit / 5 curves

Lamp adjust	Yes
Picture mode	User mode / Standard / Nature / Game/ Movie
Video adjust	Contrast / Brightness/Sharpness / Color / Tint
3 levels of color Temp. For VGA	High / Middle / Low
<b>(2)Audio</b>	
Tone	Bass / Treble / Balance
Loudness	Yes
Speakers	5 watt per channel
<b>(3) General</b>	
Channel auto scan	Yes
Sleep timer	Off /30mins /60mins /90mins /120mins
Standby power	Under 5W
Timing support-Video	480i/480p/720p/1080i
PC timing	1360*768@60Hz(native) 1280x768@60Hz 1024*768@60Hz 800*600@/60Hz 640*480@60Hz
<b>(4)NTSC</b>	
NTSC	Sound: Mono / Stereo / SAP
	Favorite Channel
	V-chip
	Closed caption (CC1-CC4, Text 1-Text 4)
<b>(5)I/O</b>	
NTSC(ASIA/Japan)	AV, YPbPr 1, VGA-YPbPr 2, HDMI/HDCP(option), Sub woofer out, Head phone

# **Opening the Package**

The SCEPTRE X20 is packaged in a carton together with other standard accessories. Since the glass can be easily scratched or broken, please handle the product gently. Never place the unit on a surface with the glass facing downwards unless it is on protective padding.

When opening the carton, check that the product is in good condition and that all standard accessories and items are included.

Save the original box and all packing materials for future shipping needs.

# **Installation**

Please read the user manual carefully before performing the installation.

The power consumption of the display is approximately 70 watts.

Please use the power cord designated for the product. When an extension cord is required, use one with the correct power rating. The cord must be grounded and the grounding feature must not be defeated.

The product should be installed on a flat surface to avoid tipping. Space should be maintained between the back of the product and the wall for proper ventilation. If you would like mount the TV to the wall, please see page 13-14, for additional information. Avoid installing the product in the kitchen, bathroom or other places with high humidity dust or smoke, so as not to shorten the service life of the electronic components. Please ensure the product is installed with the screen in landscape orientation. Any 90° clockwise or counterclockwise installation may induce poor ventilation and successive component damage.

# **Important Safety Guidelines**

This product is designed and manufactured to operate within defined design limits, and misuse may result in electric shock or fire.

To prevent the product from being damaged, the following rules should be observed for

the installation, use and maintenance of the product. Read the following safety instructions before operating the display. Keep these instructions in a safe place for future reference.

- To avoid the risk of electric shock or component damage, switch off the power before connecting other components to the X20 LCD TV.
- Unplug the power cord before cleaning the X20 LCD TV. A damp cloth is sufficient for cleaning the X20 LCD TV. Do not use a liquid or a spray cleaner for cleaning the product. Do not use abrasive cleaners.
- Always use the accessories recommended by the manufacturer to insure compatibility.
- When moving the X20 LCD TV from an area of low temperature to an area of high temperature, condensation may form on the housing.
- Do not turn on the X20 LCD TV immediately after this to avoid causing fire, electric shock or component damage.
- Do not place the X20 LCD TV on an unstable cart, stand, or table. If the X20 LCD TV, it can injure a person and cause serious damage to the appliance. Use only a cart or stand recommended by the manufacturer or sold with the X20 LCD TV.
- Any heat source should maintain a distance of at least 5 feet away from the X20 LCD TV, i.e. radiator, heater, oven, amplifier etc. Do not install the product too close to anything that produces smoke or moisture. Operating the product close to smoke or moisture may cause fire or electric shock.
- Slots and openings in the back and bottom of the cabinet are provided for ventilation. To ensure reliable operation of the X20 LCD TV and to protect it from overheating, be sure these openings are not blocked or covered. Do not place the X20 LCD TV in a bookcase or cabinet unless proper ventilation is provided.
- Never push any object into the slot on the X20 LCD TV cabinet. Do not place any objects on the top of the product. It could short circuit parts causing a fire or electric shock. Never spill liquids on the X20 LCD TV.

- The X20 LCD TV should be operated only from the type of power source indicated on the label. If you are not sure of the type of power supplied to your home, consult your dealer or local power company.
- The power cable must be replaced when using different voltage from that specified in the User Manual. For more information, contact your dealer.
- The X20 LCD TV is equipped with a three-pronged grounded plug, a plug with a third (grounding) pin. This plug will fit only into a grounded power outlet as a safety feature. If your outlet does not accommodate the three-wire plug, have an electrician install the correct outlet, or use an adapter to ground the appliance safely. Do not defeat the safety purpose of the grounded plug.
- Do not overload power strips and extension cords. Overloading can result in fire or electric shock.
- The wall socket shall be installed near the equipment and shall be easily accessible.
- Only the marked power source can be used for the product. Any power source other than the specified one may cause fire or electric shock.
- Do not touch the power cord during lightning. To avoid electric shock, avoid handling the power cord during electrical storms.
- Unplug the unit during a lightening storm or when it will not be used for long period of time. This will protect the X20 LCD TV from damage due to power surges.
- Do not attempt to repair or service the product yourself. Opening or removing the back cover may expose you to high voltages, the risk of electric shock, and other hazards. If repair is required, please contact your dealer and refer all servicing to qualified service personnel.
- Keep the product away from moisture. Do not expose this appliance to rain or moisture. If water penetrates into the product, unplug the power cord and contact your dealer. Continuous use in this case may result in fire or electric shock.

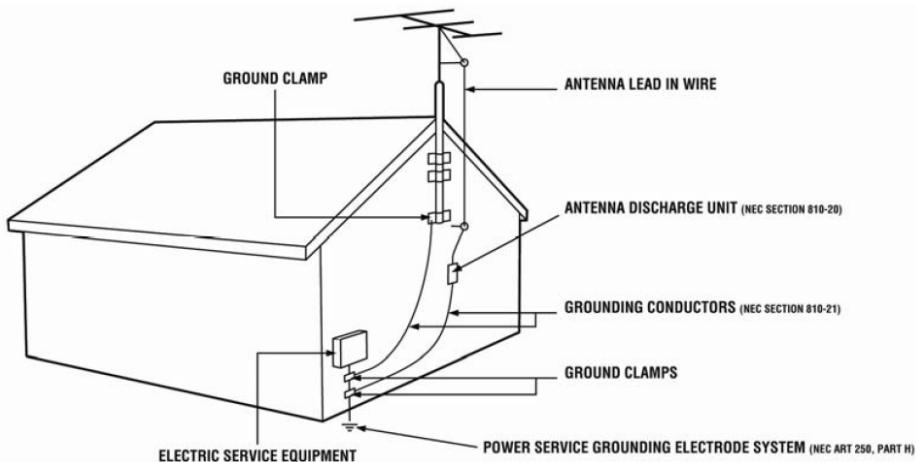
- Do not use the product if any abnormality occurs. If any smoke or odor becomes apparent, unplug the power cord and contact your dealer immediately. Do not try to repair the product yourself.
- Avoid using dropped or damaged appliances. If the product is dropped and the housing is damaged, the internal components may function abnormally. Unplug the power cord immediately and contact your dealer for repair. Continued use of the product may cause fire or electric shock.
- Do not install the product in an area with heavy dust or high humidity. Operating the product in environments with heavy dust or high humidity may cause fire or electric shock.
- Hold the power connector when removing the power cable. Pulling the power cable itself may damage the wires inside the cable and cause fire or electric shock. When the product will not be used for an extended period of time, unplug the power connector.
- To avoid risk of electric shock, do not touch the connector with wet hands.
- Insert batteries in accordance with instructions while using the remote control. Incorrect polarities may cause damage and leakage of the batteries, operator injury and contamination the remote control.
- If any of the following occurs please contact the dealer:
  - The power connector fails or frays.
  - Liquid sprays or any object drops into the X20 LCD TV.
  - The Display is exposed to rain or other moisture.
  - The Display is dropped or damaged in any way.
  - The performance of the Display changes substantially.
- Operating environment: Temperature: 5°C ~ 35°C, Humidity: 10% to 90% non-condensing, Altitude: 0~10,000 ft.

# Television Antenna Connection Protection

## External Television Antenna Grounding

If an outside antenna or cable system is to be connected to the LCD TV, make sure that the antenna or cable system is electrically grounded to provide some protection against voltage surges and static charges.

Article 810 of the National Electrical Code, ANSI/NFPA 70, provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of the grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements of the grounding electrode.



## Lightning Protection

For added protection of the LCD TV during a lightning storm or when it is left unattended or unused for long periods of time, unplug the LCD TV from the wall outlet and disconnect the antenna or cable system.

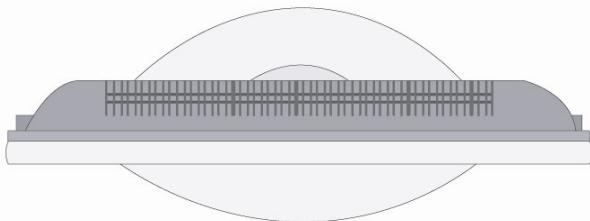
## Power Lines

Do not locate the antenna near overhead light or power circuits, or where it could fall into such power lines or circuits.

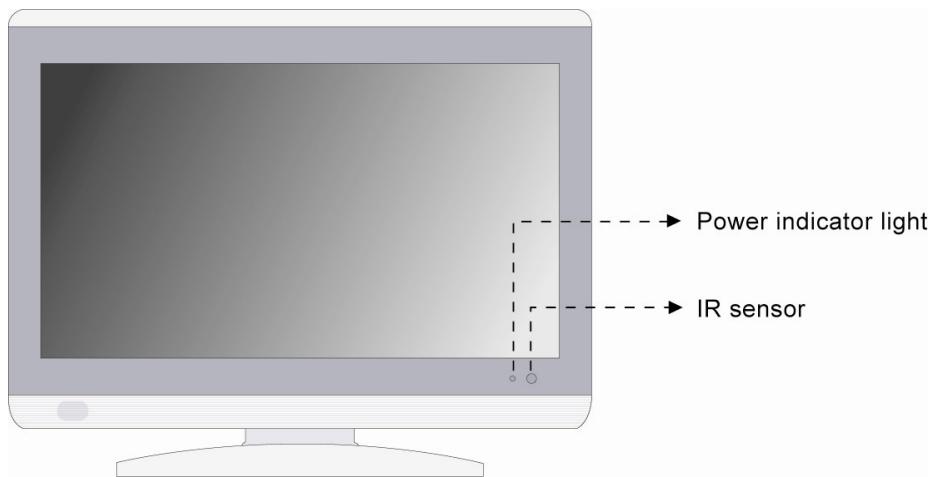
# Product Browse

## •Display

Top View



Front View

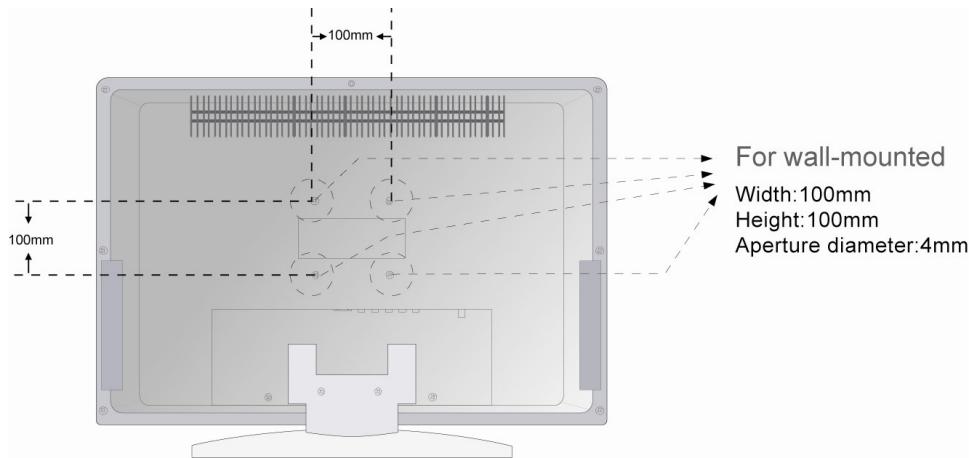


**Note:**

**Power indicator:** If light is blue, the TV is turned on. If the light is red, the TV is turned off and in standby mode. If the light is off, the inverter connector is not connected and no power is provided to the display panel.

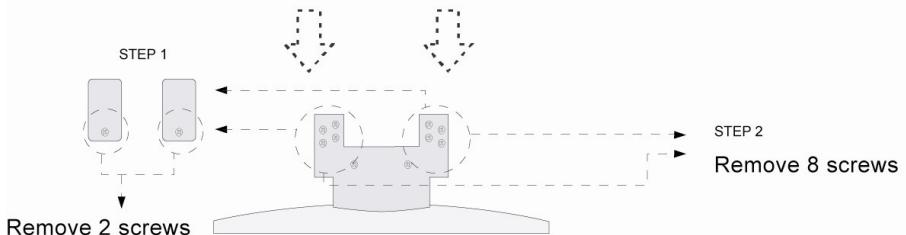
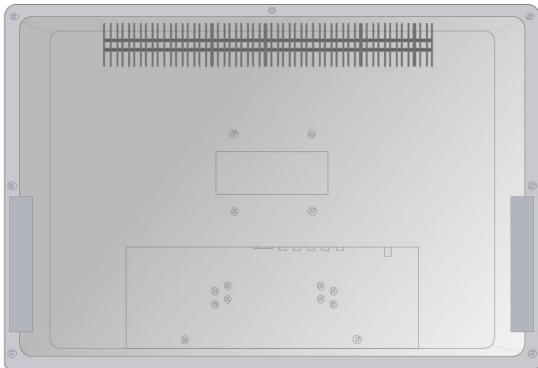
**IR sensor:** This is the sensor that passes all of the remote signals to the TV. Point the remote control directly at this sensor for the best response.

## Wall Mount

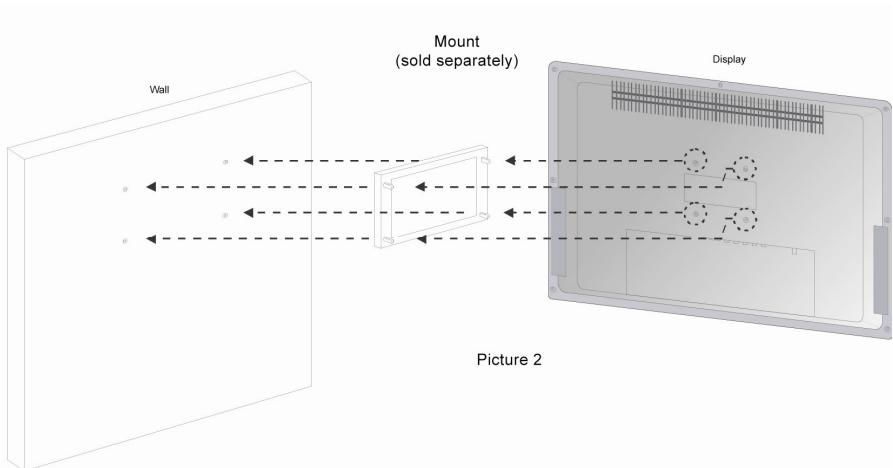


## Wall Mount Illustration

1. Unplug all the cables and cords from the LCD TV.
2. Place the LCD TV face down on a soft and flat surface (blanket, foam, cloth, etc) to prevent any damage to the display.
3. Remove 2 screws on the left and right Hinge cover and then remove 8 screws on the back panel of the TV located near the bottom so that the base stand can be removed (see Picture 1).
4. Gently pull the stand away from the display by grasping firmly to the base.
5. Now, the display can fit securely to a mount (sold separately) by utilizing the mounting holes in the center of the back panel of the display (see Picture 2).

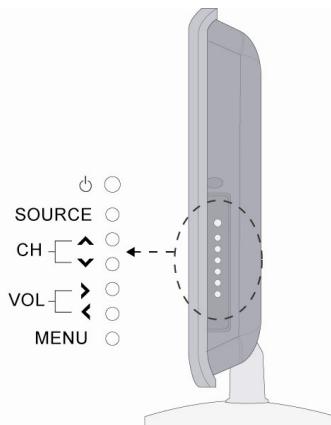


Picture 1



Picture 2

## Side View



### About Control Keys

POWER SOURCE ▲ CH ▼ < VOL > MENU

POWER Power on/off – Please note this is a passive power button and doesn't physically cut power off the TV but turn the TV into standby mode. When turning LCD on/off, wait 5-10 seconds before pressing the power button again.

CH ▲ ▼ Press CH buttons to switch between preprogrammed channels.

< VOL > Press VOL buttons to adjust the audio volume.

SOURCE Press this button to select among the following PC or TV or AV inputs –TV, HDMI, HDCP, DVI, VGA-PC, YPbPr1(Component), VGA-YPbPr2, AV. Please note HDMI, HDCP, and DVI are physically shared under the same HDMI port. Please also note that the VGA port can be used as a second Component (YPbPr) port via the optional VGA->Component (YPbPr) cable.

MENU Press the MENU button to activate the OSD (On Screen Display) main menu. When OSD is activated, the CH buttons become navigation buttons and the VOL buttons become adjusting buttons. Press MENU again to quit.

## **TV Info Explained**

TV On the top 1/3<sup>rd</sup> of the screen an information bar would appear, the information displayed would include what program you're watching, what time slot is the program playing in and what format the program is being displayed in.

## **Source Explained**

TV This connection is for TV tuner only. TV tuner is actually a NTSC standard tuner, which can scan over the airwave UHF/VHF or Analog Cable (cable directly hooked up into the TV) TV stations and display them at standard definition (regular TV video resolution). This connection is primarily used by non-HD antennas or analog cables.

HDMI HDMI stands for High Definition Multimedia Interface. This type of connection is designed so that 1 single cable can handle both high definition digital video and audio at the same time. To view video and listen to audio with this source you must have a HDMI to HDMI cable. This type of connection is primarily used by satellite or digital cable boxes, up conversion DVD players, and HD DVD players.

HDCP HDCP stands for High-bandwidth Digital Content Protection. This type of function is designed so high definition video cannot be copied while hooked up to a recording device. HDCP is enabled in HDMI and in HDCP DVI mode. This type of connection is primarily used by satellite or digital cable boxes and up conversion DVD players. Please note to get sound out of HDCP mode you must connect an audio cable from your audio video device to the audio port labeled "PC Audio In".

DVI DVI stands for Digital Video Interface. This type of connection is designed so video can be digitally transferred to the television therefore display the colors of any video more accurately and vividly. This interface can be used by both PC only. Please note to get sound out of DVI mode you must connect an audio cable from your audio video device to the audio port labeled "PC

Audio In”.

VGA-PC VGA stands for Video Graphics Array. This type of connection is designed so people can use their PCs on the 20” LCD/TV. This type of connection is primarily used by personal computers. Please note to get sound out of VGA mode you must connect an audio cable from your audio video device to the audio port labeled “PC Audio In”.

YPbPr 1 (Component) High definition audio video devices can be connected to the port via 3 wires, red, green, and blue. Older audio video devices that display high definition video use this port. This connection is primarily used by DVD player, satellite box, digital cable box, and video game consoles (XBOX 360, PS3, Gamecube).

VGA-YPbPr 2 This is a duplicate for YPbPr 1 (Component). Please use the optional VGA to Component conversion cable.

AV This connection is for common audio video devices that use RCA (red yellow white) cable. This connection is primarily used by VCR, DVD player, DV camcorder, and video game consoles (XBOX 360, PS3, Gamecube).

## **I/O Connector Definitions**

### **1. AC Power**

This connection is for providing power to the TV. This connection uses a standard computer power cord.

### **2. Headphone Out**

This connection port is for people who want to use a headphone with the TV. The connection port uses a 3.5mm mini-jack audio cable.

### **3. PC Audio In**

This connection port is for people who want to provide audio to the TV when using devices such as PC or set-top box with a DVI output. The sources it provides audio for are HDCP, DVI, VGA-PC, or VGA-YPbPr2. For PC connection you would plug the provided 3.5mm mini-jack audio cord into your PC sound card and this port. For A/V devices such as DVI set-top box or DVI DVD player, you would use a RCA red/white to 3.5mm mini-jack cable for audio.

### **4. HDMI (High Definition Capable)**

This connection port receives audio and high definition signal through one single cable. It also doubles as HDCP source and DVI source with the provided HDMI to DVI conversion cable. You can connect an up conversion DVD player, computer (via DVI source), or set-top box through this cable. If you are using DVI or HDCP you will need to connect an audio connection to the PC Audio In connection port to provide audio. This connection uses a HDMI cable or a HDMI to DVI cable.

### **5. VGA (High Definition Capable)**

This connection port is used primarily by PCs via VGA-PC source. It also doubles as an optional YPbPr (component) port via VGA-YPbPr2 source, if you have the optional VGA to component conversion cable. With the optional cable you can connect to DVD players, game consoles, or set-top boxes. If you are using this port as the secondary YPbPr (component) port, you will need to connect an audio connection to the PC Audio In connection port to provide audio. This connection uses VGA cable or a VGA to component cable.

## **6. Component (High Definition Capable)**

This connection port is for connecting DVD players, game consoles, or set-top boxes via YPbPr1 source. Use the connectors indicated by the green (Y), blue (Pb), and red (Pr) for video, and the white (L) and red (R) connectors for audio input. Select YPbPr 1 source for video/audio. This connection uses component cable.

## **7. Subwoofer Out**

The black (SUBWOOFER OUT) connector sends out bass signals to a subwoofer by using RCA audio cable for connection.

## **8. AV**

These connection ports are used for connecting composite devices, such as VCR, DVD player, game console, or set-top box via AV source. Use the connectors white (L) and red (R) for audio and the yellow (AV) for video. You can also substitute the yellow (AV) by using the black connector (S-VIDEO) for a better picture. Please note you can only connect one type of video connector at a time. Please do not connect both S-VIDEO and AV at the same time. This connection uses RCA audio cable for sound, composite cable for video or s-video cable for video.

## **9. TV Tuner**

This connection port is used for connecting antenna, satellite box or cable service via TV source. If you are using a satellite box select cable as your cable/air setting. If you are connecting for cable service or antenna please don't forget to switch for the correct setting under TV setup and scan for the channels. This connection uses coaxial cable.

## **Picture Quality of All Connections from Ok to Best**

### **1. TV Tuner (OK)**

Analog video - 480i.

### **2. AV (Basic)**

Analog Video - 480i. The yellow connector provides all the video information.

### **3. S-VIDEO (Fair)**

Analog Video - 480i. The black connector separates between black and white information and color information therefore displaying sharper text and video.

### **4. Component (Good)**

Analog HD Capable Video - 480i, 480p, 720p, 1080i The video signal is separated into three different cables each carrying different video data thus providing a superior picture over S-Video.

### **5. VGA (Better)**

Analog HD Capable Video - 480i, 480p, 720p, 1080i When doubled as a component port with VGA to Component cables the video quality is similar to Component, but this is a PC connector by default. When used on a PC, 1360x768 is the max resolution available.

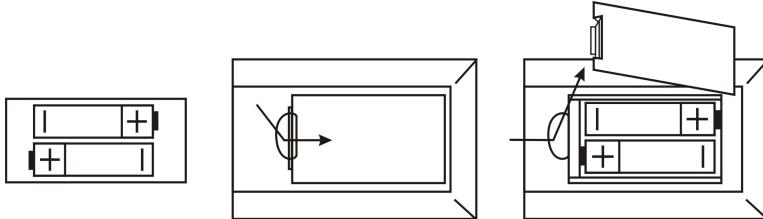
### **6. HDMI (Best)**

Digital HD Capable Video - 480i, 480p, 720p, 1080i. This connection is pure digital audio/video, full uncompressed bandwidth capable of supplying the highest sharpest picture quality available in the market. When used as a PC DVI port with the HDMI to DVI conversion cable, 1360x768 is the max resolution available and the graphics / text is crisper than VGA.

# Quick Installation

## ■ Installation batteries of remote control

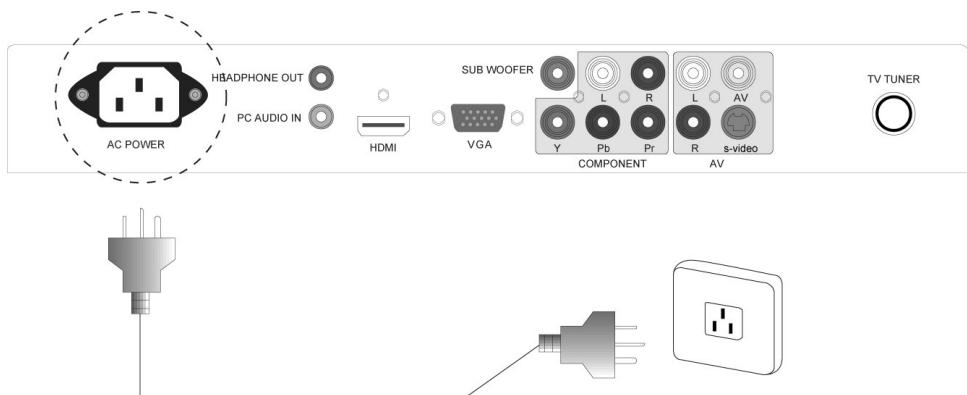
- (1). Insert two AAA batteries into the remote control. Make sure + and – are facing the proper direction.
- (2). Replace the cover.



If the remote control is not to be used for a long time, remove the batteries.  
Keep the remote control away from moisture, sunlight, and high temperatures.

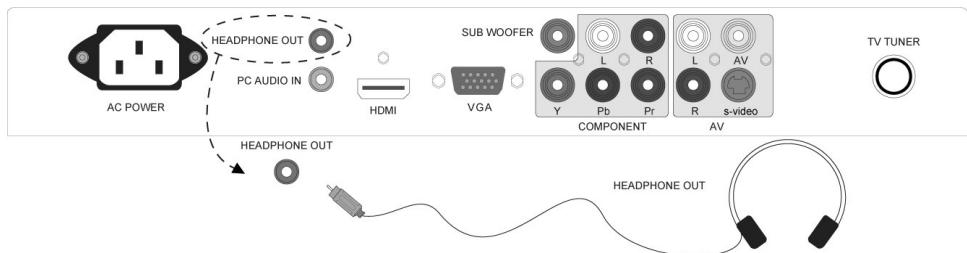
## Connecting the AC Power Cord

Connect AC power from the rear of media box to the power source.



## Connecting Headphone Out Port

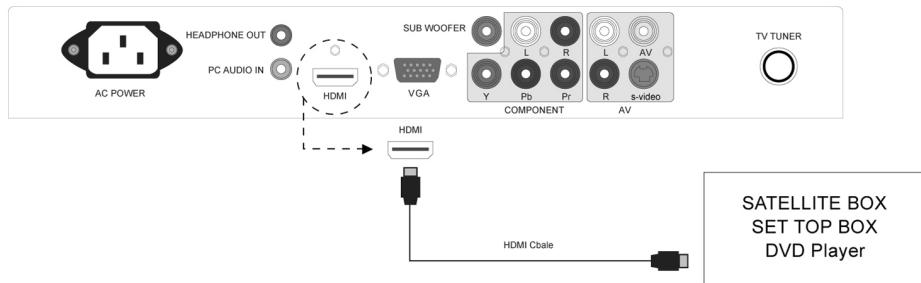
The headphone out port is for connecting to a headphone. Please note while a headphone is connected to headphone out, the TV speakers will be muted.



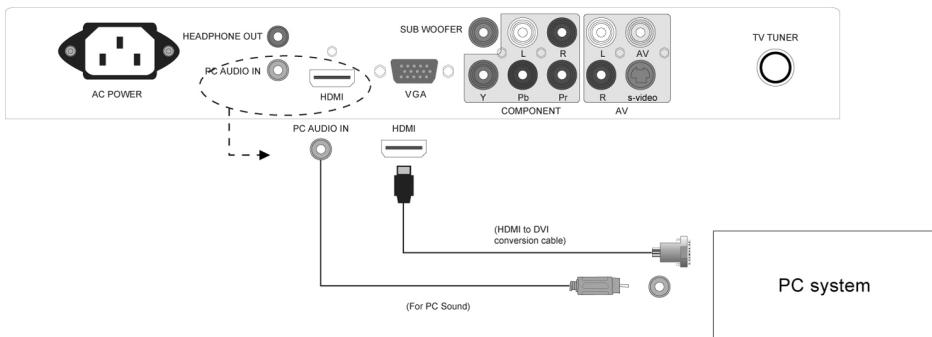
## Connecting HDMI Port

HDMI is for connecting HD Satellite, HD Digital Cable Set-top Boxes or other device with HDMI port. The HDMI port also doubles as HDCP/DVI port. If your HD set-top box does not have HDMI but DVI instead, please use the HDMI to DVI conversion cable that is included in the box. When using HDMI to DVI conversion cable please also plug audio wires into PC AUDIO IN port for sound. Note: PC Audio In is for sound on HDCP/DVI.

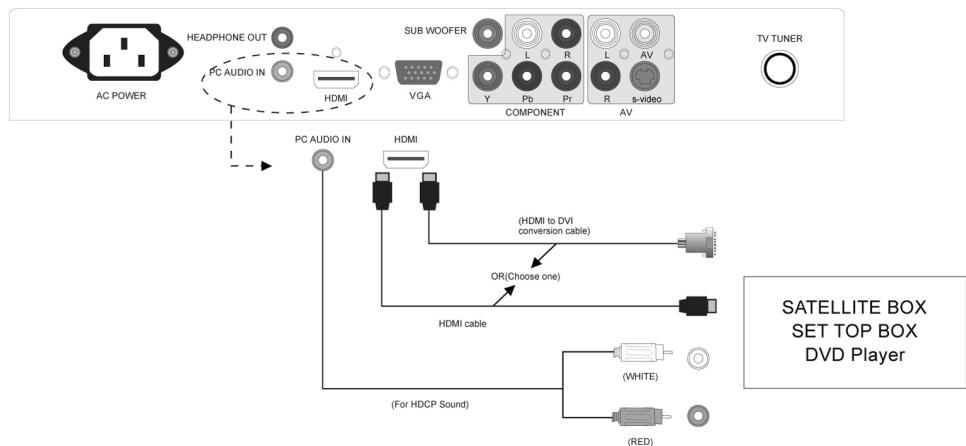
### A.HDMI



### B.DVI



## C.HDCP

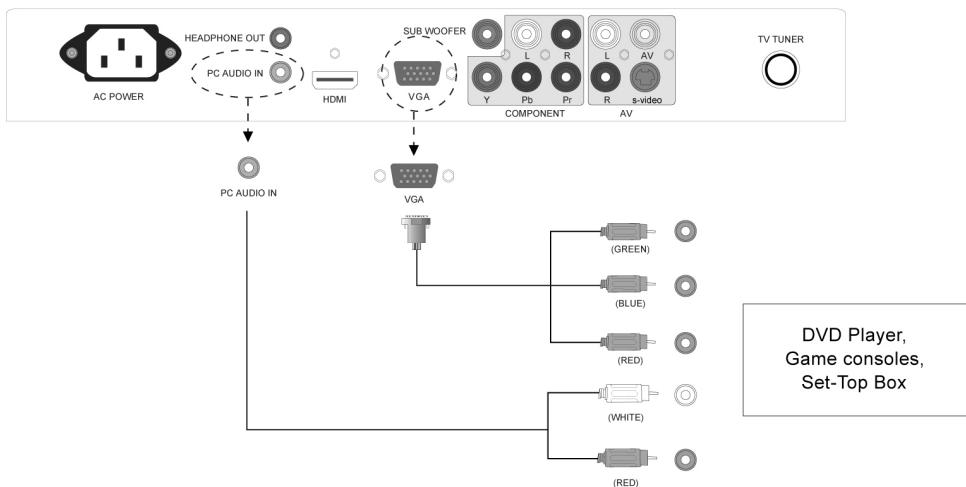
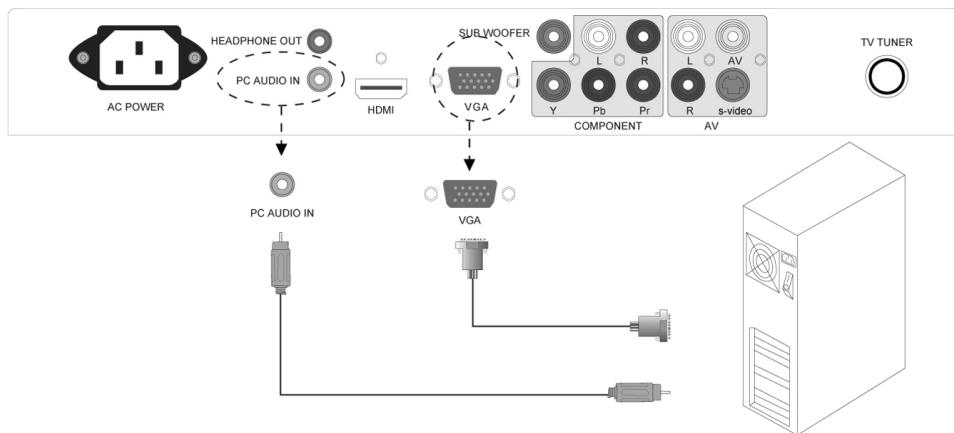


### NOTE:

- 1. The HDMI input on your LCD TV supports High-bandwidth Digital Content Protection (HDCP). HDCP encrypts the transmission between the video source and the digital display for added security and protection.**
- 2. Refer to your HDTV Set-top Box or other device with HDMI port user manual for more information about the video output requirements of the product or consult your satellite or cable operator.**

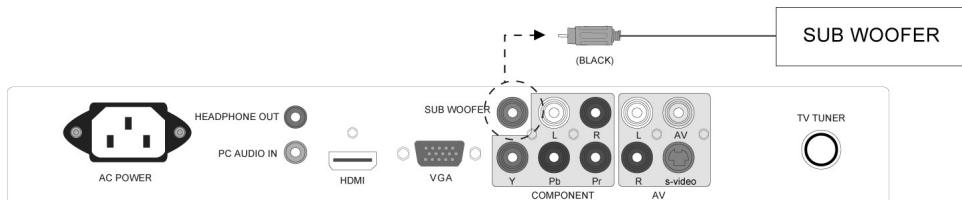
## Connecting VGA Port

VGA port is for connecting PC system. Please use a VGA cable to connect from the PC to the 20" LCD's VGA port. The other cable from PC Audio In to the PC is for audio. If you have separate PC speakers, please disregard the cable. It also doubles as an optional YPbPr (component) port via VGA-YPbPr2 source, if you have the optional VGA to component conversion cable. With the optional cable you can connect to DVD players, game consoles, or set-top boxes. If you are using this port as the secondary YPbPr (component) port, you will need to connect an audio connection to the PC Audio In connection port to provide audio.



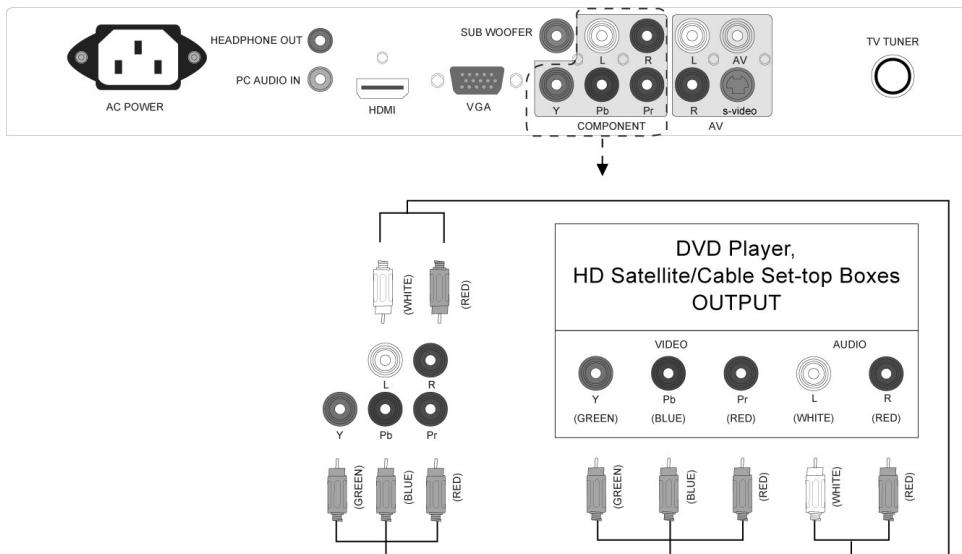
## Connecting Subwoofer Port

If you have a subwoofer, you can connect it to the TV's via Subwoofer Out port for better bass.



## Connecting Component HD Port

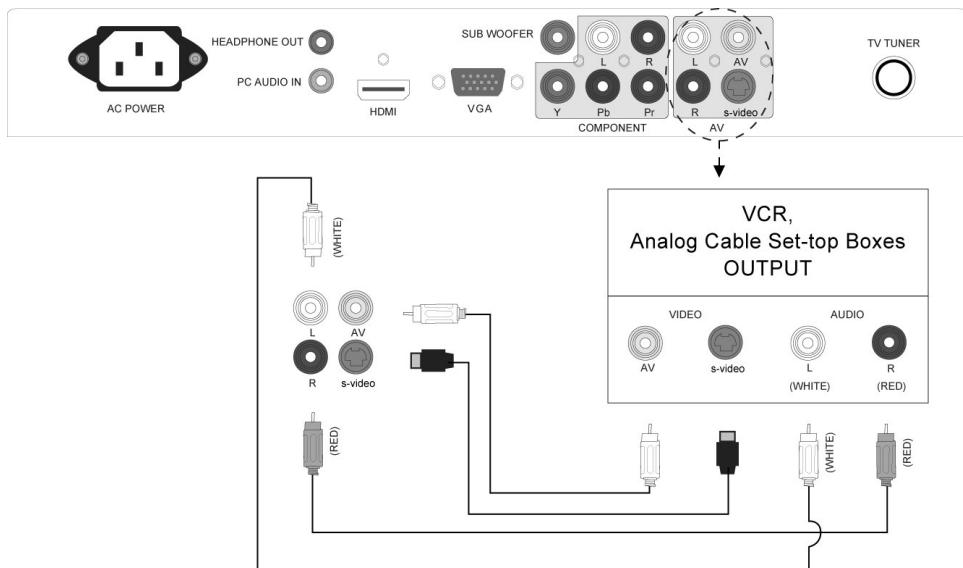
Component is for connecting DVD Player, HD Satellite/Cable Set-top Boxes or other device that uses component wires (red, green, blue wires) for video and RCA red/white wires for audio.



**Note:** Refer to your DVD player, HD Satellite/Cable Set-top Boxes or other device with component HD port user manual for more information about the video output requirements of the product.

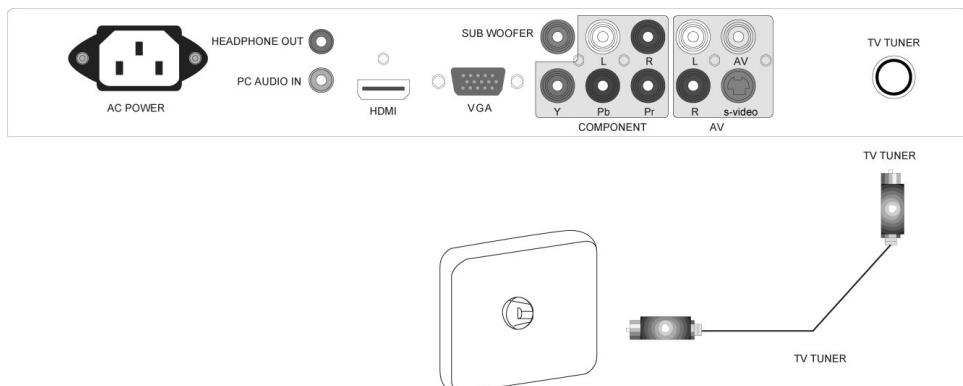
## Connecting AV Port

AV is for connecting VCR, Analog Cable Set-top Boxes or other device that uses composite or S-Video for video and RCA red/white wires for audio. Please note you can only connect to S-Video or AV one at a time.



## Connecting TV Tuner

TV tuner is for over the airwave television via UHF and VHF. Analog cable is cable hooked directly into the TV to the TV tuner connectors.



## **For Analog Cable and Antenna Users**

**Note:** The following instruction set is for TV tuner antenna, analog cable users only.

When using the TV for the first time, you must perform the channel scan to get all correct channels by doing the following: Press the “SOURCE” button on the remote controller to select the TV input signal labeled either “Cable ###” or “Air ###”. # represents numbers.

1. Press MENU button to activate the On Screen Display (OSD) menu
2. Press “VOL -/+“ (  )button to select the “TV SETUP” function group
3. Press “CH -/+“ (  )button to select correct “Cable/Air” signal source
4. Press “CH -/+“ (  )button to select “CH-SCAN” function and then press “  )button to start scanning the available channels.

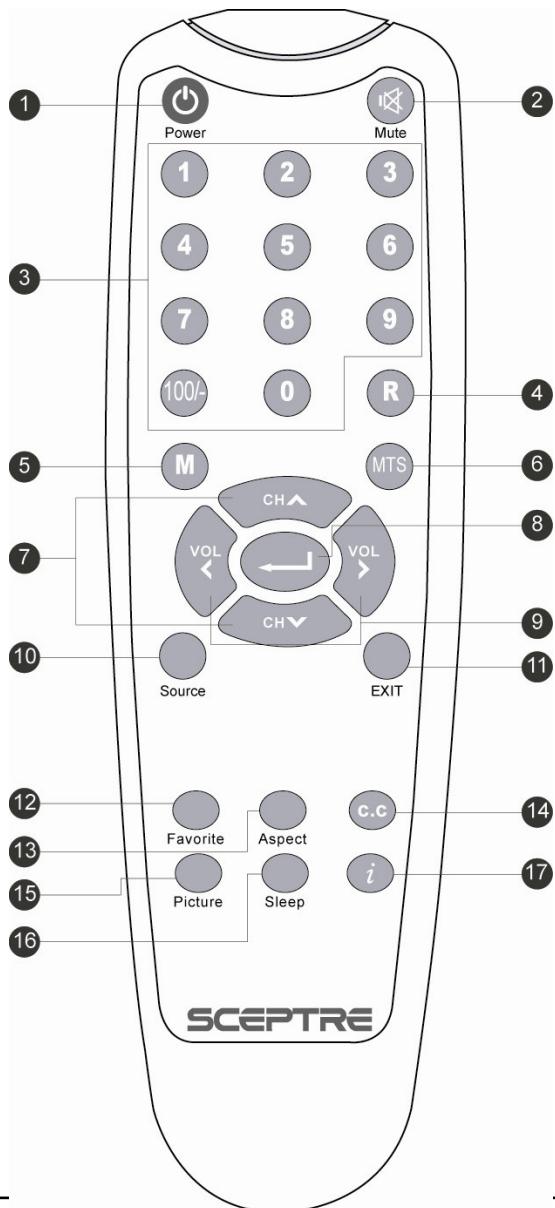
## **For Set-top Box Users (including Digital Cable, Satellite, other video displaying devices)**

**Note:** The following instruction set is for set-top box users (including digital cable, satellite box, and other video devices)

1. Make sure your video cables are connected correctly to the back of the television color matching all ports.
2. Press the “SOURCE” button on the remote controller to select the TV input signal which you’ve connected the set-top box to TV, AV, HDMI, HDCP, DVI, VGA-PC, VGA-YPbPr2, or YPbPr1(Component).
3. Please consult your set-top box’s manual with regards on how to turn on the device and browse channels.

# Using the X20

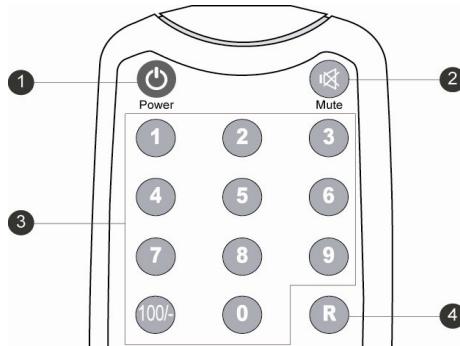
## Remote Control



## Universal Remote Code and Support

Sceptre's X20 LCD supports **SONY's universal remote code**. Please look up **SONY's codes** in your handbook of remote codes to setup your universal remote. Please note :

Due to the variety of universal remotes manufactured, not all universal remotes will fully function with the code. If you have trouble getting channel or volume buttons to work, please try the directional buttons on your universal remote rather than your regularly used volume buttons.



### 1 POWER

Turns on or off the LCD Display unit.

Please note this is a passive power button and doesn't physically cut power off the TV but turn the TV into standby mode. When turning LCD on/off, wait 5-10 seconds before pressing the power button again.

### 2 MUTE

Press the button to turn off the audio volume. Press the button again or press volume - / + ( ) or press MTS () to restore the previous volume level.

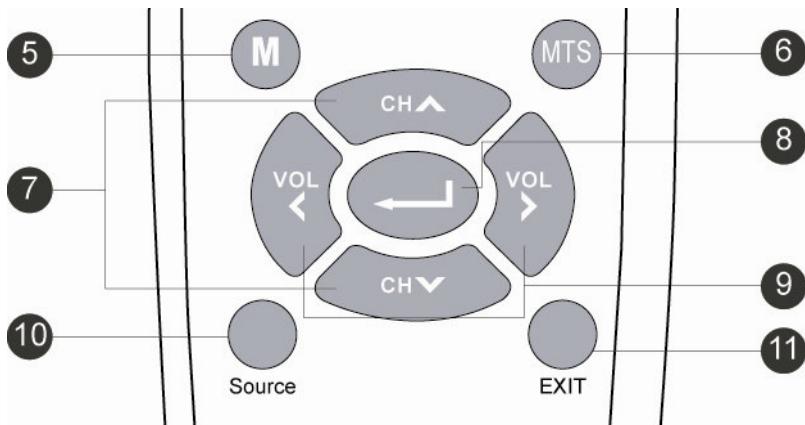
### 3 0 – 9, 100/- channel number

Select channels from 1 to 99, press the desired channel numbers.

If the channel number is 100 or greater, first press the button “100-“

### 4 R / Return

Press this button to return to previous channel.



## 5 M MENU

Press the MENU button to activate the OSD (On Screen Display) main menu. Press again to quit the main menu.



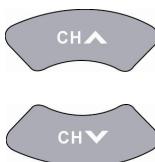
## 6 MTS MTS

Selects STEREO, MONO, or SAP (second audio program).



## 7 CH +/- CH +/-

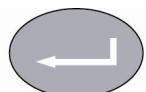
Press these two buttons to scroll through the channels.

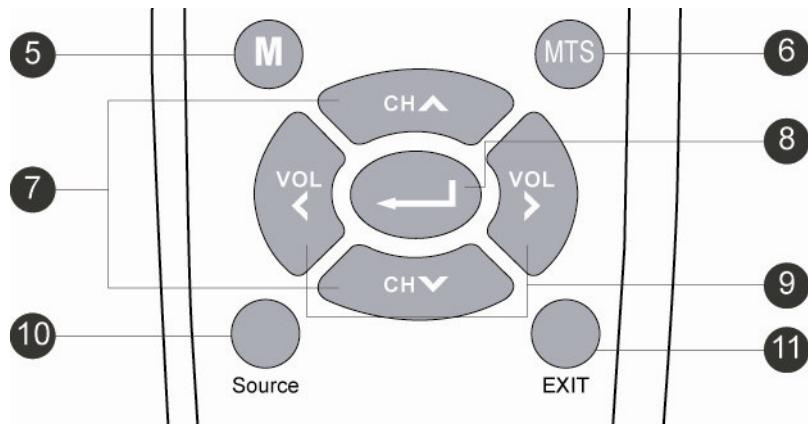


If the OSD Menu is shown on the screen, press these buttons to scroll through the menu items vertically.

## 8 ← Enter

When OSD menu is shown, press this button to enter (confirm) the sub-menu.

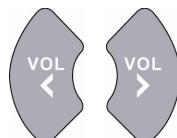




### 9 VOL -/+

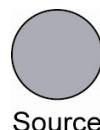
Press these two buttons to adjust the speaker volume level.

If the OSD Menu is shown on the screen, press these buttons to scroll through the menu items horizontally.



### 10 SOURCE

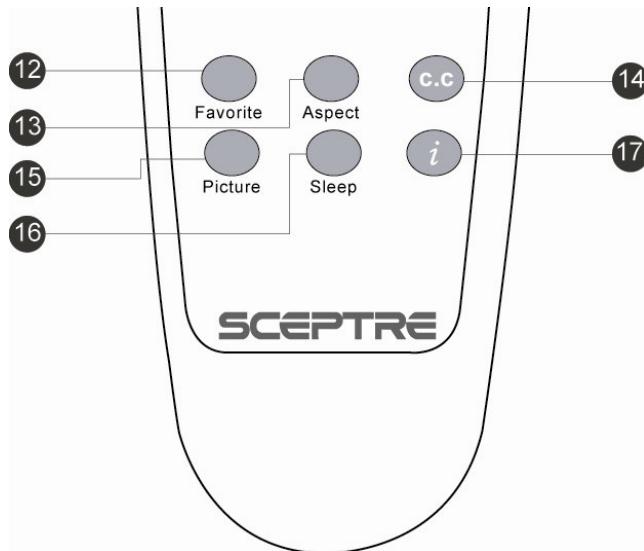
Selects different PC/DTV input sources – TV, AV, YPbPr1, HDMI  
HDCP, DVI, VGA-PC, and VGA-YPbPr2.



### 11 EXIT

Press this button to exit from the sub-menu to the previous menu.





## 12 FAVORITE (Channels)

Favorite

Chooses the pre-selected favorite channels. Total of nine channels can be stored as the Favorite channels list in TV source.



Note: Before the Favorite (channels) can be used, one must pre-select the channels and store into the Favorite channel list.

**For TV** go to the channel you preferred to watch, press MENU button to enter the OSD (On Screen Display), navigate to TV Setup and select Favorite CH, enter 1 ~ 9 to store the channel at the desired position of the list. Enter 1 ~ 9 again to erase the channel from the favorite channel list. When you are done, press the MENU button to save and exit.

## 13 ASPECT

Aspect

Press the button to select the available screen aspect ratio – Auto, 16:9 , 4: 3, Zoom Full, Zoom Subtitle.



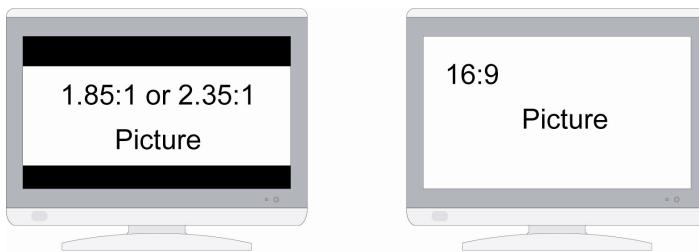
# Aspect Explained

## 1. Auto

Auto aspect ratio automatically adjust to the picture's original format. If 16:9 the full screen will be used. If 4:3, black bars will be added on the side.

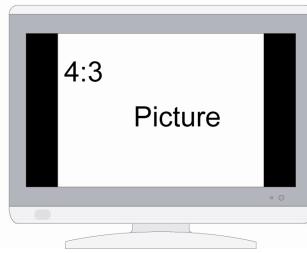
## 2. 16:9

When watching a standard broadcast or full-frame movie in this mode, the display image is stretched horizontally to fill the TV screen. When watching a widescreen (1.76:1 source) program or movie, the display image fills the TV screen. If you are watching a widescreen (1.85:1 or 2.35:1 source) program or movie, there will still be black bars at the top and bottom. Note : When in HD mode or connected to a HD set-top box that controls the resolution you will not be able to choose your aspect ratio.



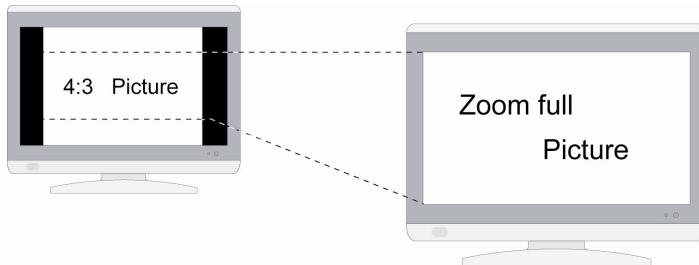
## 3. 4:3

The original 4:3 aspect ratio (1.33:1 source) is preserved, so black bars are added to the left and right of the display image. Standard TV broadcasts are displayed with a 4:3 Aspect Ratio. Movies in 4:3 Aspect Ratio may be referred to as pan-and-scan or full frame. These movies were originally filmed in 16:9 (widescreen), and then modified to fit a traditional TV screen (4:3). Note : When in HD mode or connected to a HD set-top box that controls the resolution you will not be able to choose your aspect ratio.



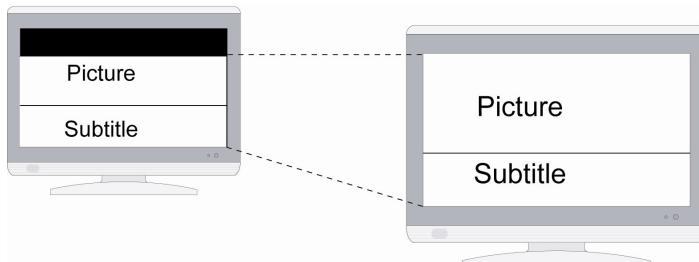
#### 4. Zoom Full

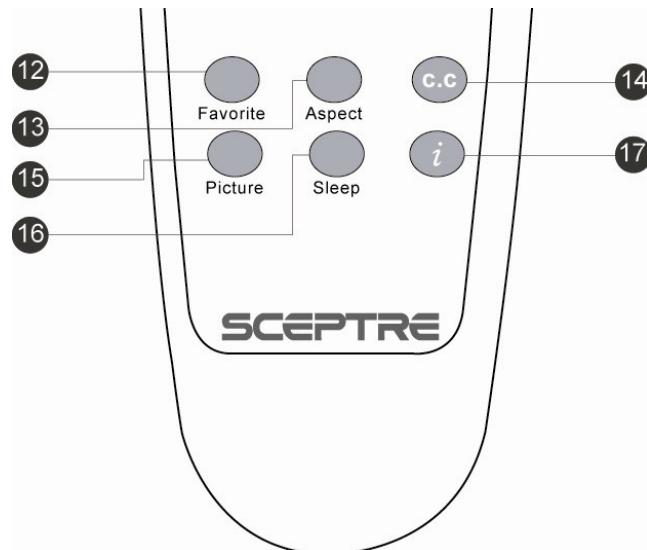
When watching a 4:3 aspect ratio TV or movie, this mode zooms in to cut off most of the black bars on the side while preserving the 16:9 ratio. Because of the zoom, the top and bottom are cut off as well. Note : When in HD mode or connected to a HD set-top box that controls the resolution you will not be able to choose your aspect ratio.



#### 5. Zoom Subtitle

This mode is primarily used when you're watching a movie where the widescreen aspect ratio is not 16:9 but rather 1.85:1 or 2.35:1. Since black bars at the top and bottom, this zoom mode cuts off the top black bar but preserves the bottom for subtitle purposes. Note : When in HD mode or connected to a HD set-top box that controls the resolution you will not be able to choose your aspect ratio.





### 14 C.C

Press C.C to display closed caption information.

Press repeatedly to scroll through OFF, CC1, CC2, CC3, CC4, TT1, TT2, TT3, and TT4. Please note closed captioning is only supported through AV, and TV Tuner.



### 15 PICTURE

Select different preset picture modes –

User mode, Standard, Nature, Game, and Cinema.



Please note, you must be in user mode to customize picture settings.

### 16 SLEEP

Press repeatedly to cycle through the available sleep timer options – Off/30/60/90/120 minutes.



### 17 INFO

Display related information on current channels or PC modes.



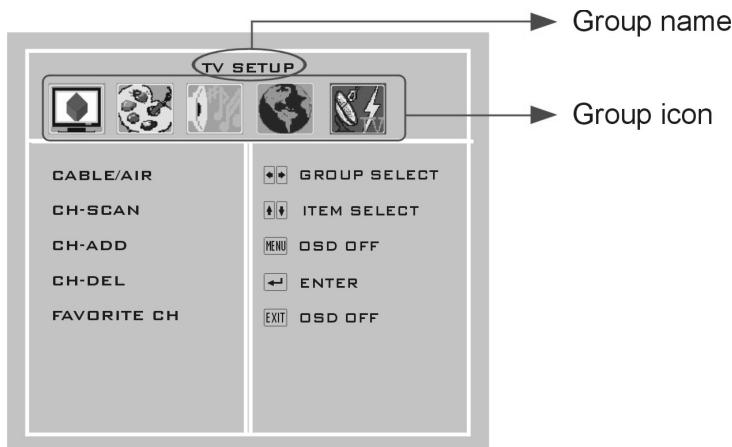
# OSD (On Screen Display Menu)

The OSD Menu varies based on different input signal sources. The OSD menus provide different control functions, which allow users to optimize the picture/audio performances for each of the input signal sources.

## How to operate the OSD Menu:

1. Press the MENU button on the remote controller to pop up the OSD menu. Press the MENU button again to quit the OSD menu.
2. Press  to select the GROUP items which listed horizontally on the OSD menu.
3. Press  to scroll through the function items vertically.
4. Press  to enter the sub-menu.  
Press VOL -/+ (  ) to adjust the setting.
5. Press  to go back to the previous menu.

## OSD screen instruction:



Group icon descriptions and accessibility:

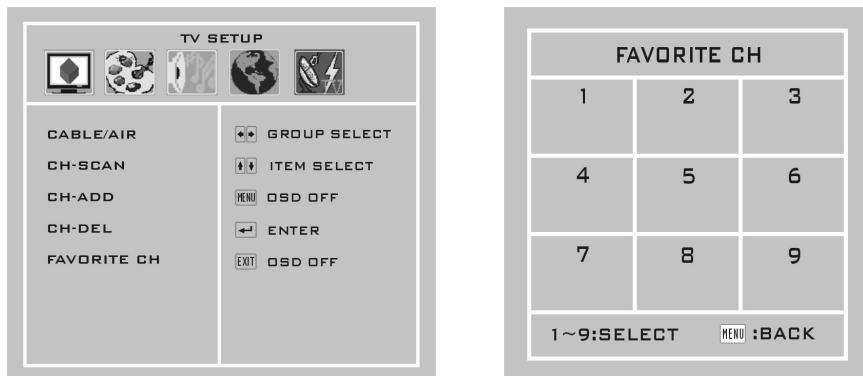
1. GEOMETRY / VIDEO (user mode only)
2. PICTURE / ADVANCED (user mode only)
3. AUDIO (user mode & none-user mode)
4. SYSTEM (user mode & none-user mode)
5. TV SETUP (user mode & none-user mode)

### Note:

- I. The follow chapter will introduce the operations for different input signal.  
(Press the button "Picture" on the remote controller to switch to "user" mode to enable user mode only group icons)
- II. None-user mode include Standard, Nature, Game and Cinema.

## TV input

When TV (NTSC) input is selected, the following OSD menu will be displayed when the MENU button is pressed.



### 1. VIDEO (User mode)

- ◆ CONTRAST  
Adjusts the contrast between bright / dark graphics and text.
- ◆ BRIGHTNESS  
Adjust brightness of the screen.
- ◆ SHARPNESS  
Make the picture sharper.
- ◆ COLOR  
Adjust Picture Chrominance Gain/Ratio.
- ◆ TINT  
Adjust Picture Chrominance angle (or skin color).
- ◆ RECALL  
Reset the parameters to original factory settings.

### 2. ADVANCED (User mode)

- ◆ VIVID COLOR  
Make color brighter without over-saturation.

- ◆ SKIN TONE  
Make the skin color brighter without affecting other colors.
- ◆ GREEN  
Strengthen Green (grass color) color without affecting other colors.
- ◆ BLUE  
Strengthen Blue (sky color) color without affecting other colors.
- ◆ NOISE  
Adjust abatement of signal noise.  
Select different option – Off, -1, -2, -3, -4.
- ◆ GAMMA  
Adjust screen visual transformation.
- ◆ RECALL  
Reset the parameters to original factory settings.

### 3. AUDIO

- ◆ BASS  
Adjusts the bass level of your TV speakers.
- ◆ TREBLE  
Adjusts the treble level of your TV speakers.
- ◆ BALANCE  
Adjusts the balance (left to right) of your TV speakers.
- ◆ LOUDNESS  
Enhanced Bass and Treble strength.  
**Loudness Caution :** Because the loudness option enhances bass sound effects, the possibility of X20's speaker popping increases greatly because of different sound signals received. Our standard signal to the X20's speaker is 500mVrms but with different channels browsed or different sound cards, the output might send out 1Vrms, therefore increases the possibility of popping the X20's speaker. Please make sure to adjust the volume to below 40 when the popping occurs.
- ◆ RECALL  
Reset the parameters to original factory settings.

## 4. SYSTEM

### ◆ LANGUAGE

Choose the language between English and French for the OSD menu.

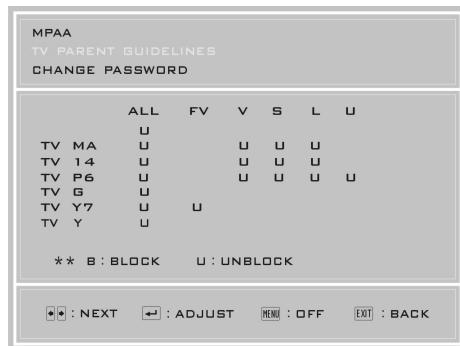
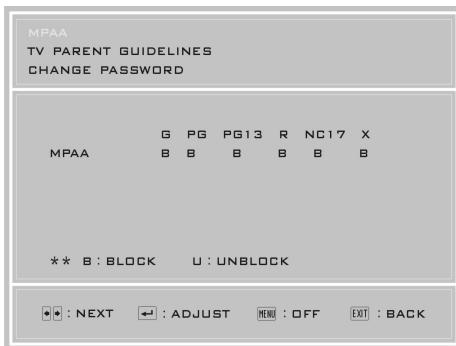
### ◆ LAMP

Adjusts how bright you want the LCD to display its images.

### ◆ RATING

Program lock according to MPAA, TV Guideline or Change password.

Please refer to Page 52 for an in-depth explanation.



## 5. TV SETUP

### ◆ CABLE/AIR

Select cable signal or terrestrial signal (via antenna).

### ◆ CH-SCAN

Scan all available channels to establish a channel list.

### ◆ CH-ADD

Add currently viewing channel to the channel list.

### ◆ CH-DEL

Delete currently viewing channel from the channel list.

### ◆ FAVORITE CH

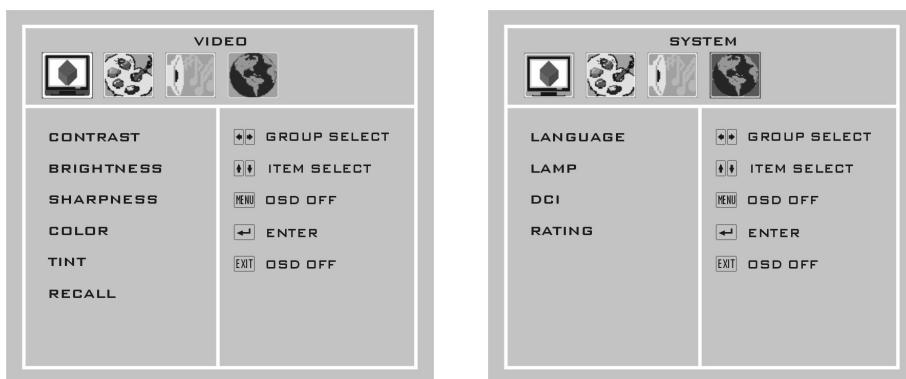
Select channels and store into the favorite channel list.

Note: To block or unblock the TV program, enter the “Rating”

sub-menu, and then press “0000” to access the menu. Press  (enter) to toggle between “B”(blocked, not allowed to watch this program) and “U”(unblocked, allowed to watch this program). MPAA blocks filters movies, while USTV filters TV sitcoms, and TV series. To use the “Favorite CH” function, turn to the desired channel first, and then enter the “Favorite CH” sub-menu. Enter 1 ~ 9 to store the channel at the desired position of the list. Enter 1 ~ 9 again to erase the channel from the favorite channel list. When you are done, press the MENU button to save and exit.

## AV inputs

When AV input is selected, the following OSD menu will be displayed when the MENU button is pressed.



### 1. VIDEO (User mode)

- ◆ CONTRAST  
Adjusts the contrast between bright / dark graphics and text.
- ◆ BRIGHTNESS  
Adjust brightness of the screen.
- ◆ SHARPNESS  
Make the picture sharper.
- ◆ COLOR  
Adjust Picture Chrominance Gain/Ratio.

- ◆ TINT  
Adjust Picture Chrominance angle (or skin color).
- ◆ RECALL  
Reset the parameters to original factory settings.



## 2. ADVANCED (User mode)

- ◆ VIVID COLOR  
Make color brighter without over-saturation.
- ◆ SKIN TONE  
Make the skin color brighter without affecting other colors.
- ◆ GREEN  
Strengthen Green (grass color) color without affecting other colors.
- ◆ BLUE  
Strengthen Blue (sky color) color without affecting other colors.
- ◆ NOISE  
Adjust abatement of signal noise.  
Select different option – Off, -1, -2, -3, -4.
- ◆ GAMMA  
Adjust screen visual transformation.
- ◆ RECALL  
Reset the parameters to original factory settings.



## 3. AUDIO

- ◆ BASS  
Adjusts the bass level of your TV speakers.
- ◆ TREBLE  
Adjusts the treble level of your TV speakers.
- ◆ BALANCE  
Adjusts the balance (left to right) of your TV speakers.

## ◆ LOUDNESS

Enhanced Bass and Treble strength.

**Loudness Caution :** Because the loudness option enhances bass sound effects, the possibility of X20's speaker popping increases greatly because of different sound signals received. Our standard signal to the X20's speaker is 500mVrms but with different channels browsed or different sound cards, the output might send out 1Vrms, therefore increases the possibility of popping the X20's speaker. Please make sure to adjust the volume to below 40 when the popping occurs.

## ◆ RECALL

Reset the parameters to original factory settings.

# 4. SYSTEM

## ◆ LANGUAGE

Choose the language between English and French for the OSD menu.

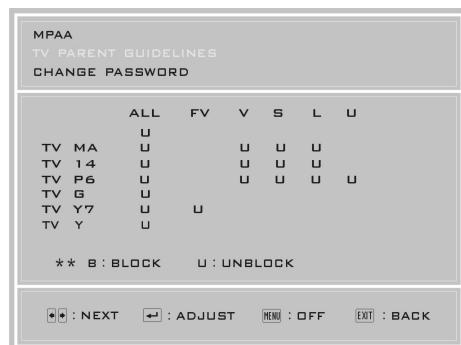
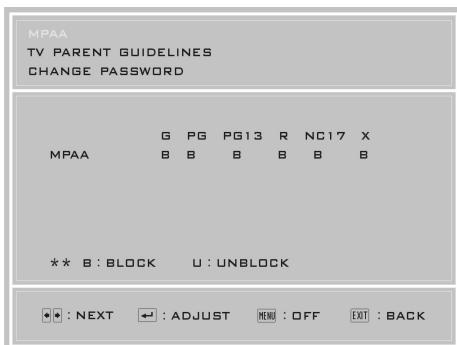
## ◆ LAMP

Adjusts how bright you want the LCD to display its images.

## ◆ RATING

Program lock according to MPAA, TV Guideline or Change password.

Refer to Page 52 for more information.



## YPbPr1 (Component), VGA-Y Pb Pr2, HDMI, HDCP inputs



### 1. VIDEO (User mode)

#### ◆ CONTRAST

Adjusts the contrast between bright / dark graphics and text.

#### ◆ BRIGHTNESS

Adjust brightness of the screen.

#### ◆ SHARPNESS

Make the picture sharper.

#### ◆ COLOR

Adjust Picture Chrominance Gain/Ratio.

#### ◆ TINT

Adjust Picture Chrominance angle (or skin color).

#### ◆ RECALL

Reset the parameters to original factory settings.

### 2. ADVANCED (User mode)

#### ◆ VIVID COLOR

Make color brighter without over-saturation.

#### ◆ SKIN TONE

Make the skin color brighter without affecting other colors.

- ◆ GREEN  
Strengthen Green (grass color) color without affecting other colors.
- ◆ BLUE  
Strengthen Blue (sky color) color without affecting other colors.
- ◆ NOISE  
Not available under these inputs.
- ◆ GAMMA  
Adjust screen visual transformation.
- ◆ RECALL  
Reset the parameters to original factory settings.

### 3. AUDIO

- ◆ BASS  
Adjusts the bass level of your TV speakers.
- ◆ TREBLE  
Adjusts the treble level of your TV speakers.
- ◆ BALANCE  
Adjusts the balance (left to right) of your TV speakers.
- ◆ LOUDNESS  
Enhanced Bass and Treble strength.

**Loudness Caution :** Because the loudness option enhances bass sound effects, the possibility of X20's speaker popping increases greatly because of different sound signals received. Our standard signal to the X20's speaker is 500mVrms but with different channels browsed or different sound cards, the output might send out 1Vrms, therefore increases the possibility of popping the X20's speaker. Please make sure to adjust the volume to below 40 when the popping occurs.

- ◆ RECALL  
Reset the parameters to original factory settings.

## 4. SYSTEM

### ◆ LANGUAGE

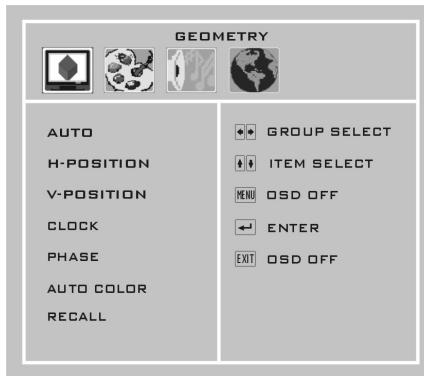
Choose the language between English and French for the OSD menu.

### ◆ LAMP

Adjusts how bright you want the LCD to display its images.

## VGA-PC input

When VGA-PC is selected, the following OSD menu will be displayed when the MENU button is pressed.



## 1. GEOMETRY

### ◆ AUTO

Auto fine tuning picture clock and position.

### ◆ H-POSITION

Adjusts the display position left or right.

Normally use Auto Adjust.

### ◆ V-POSITION

Adjusts the display position up or down. Normally use Auto Adjust.

### ◆ CLOCK

Adjusts the clock frequency to match video card / Normally use Auto

Adjust.

◆ PHASE

Adjusts the phase frequency to match video card.

Normally use Auto Adjust.

◆ AUTO COLOR

Auto adjusting for white balance of display

Please choose a white background before activating the function.

◆ RECALL

Reset the parameters to original factory settings.

## 2. PICTURE

◆ CONTRAST

Adjusts the contrast between bright / dark graphics and text.

◆ BRIGHTNESS

Adjust brightness of the screen.

◆ COLOR TEMP.

Select color temperature among High, Middle, Low, or User modes.

◆ R GAIN

Adjusts how much red color is in the display.

◆ G GAIN

Adjusts how much green color is in the display.

◆ B GAIN

Adjusts how much blue color is in the display.

◆ RECALL

Reset the parameters to original factory settings.

## 3. AUDIO

◆ BASS

Adjusts the bass level of your TV speakers.

- ◆ TREBLE  
Adjusts the treble level of your TV speakers.
- ◆ BALANCE  
Adjusts the balance (left to right) of your TV speakers.
- ◆ LOUDNESS  
Enhanced Bass and Treble strength.  
**Loudness Caution :** Because the loudness option enhances bass sound effects, the possibility of X20's speaker popping increases greatly because of different sound signals received. Our standard signal to the X20's speaker is 500mVrms but with different channels browsed or different sound cards, the output might send out 1Vrms, therefore increases the possibility of popping the X20's speaker. Please make sure to adjust the volume to below 40 when the popping occurs.
- ◆ RECALL  
Reset the parameters to original factory settings.

## 4. SYSTEM

- ◆ LANGUAGE  
Chooses the language between English and French for the OSD menu
- ◆ LAMP  
Adjusts how bright you want the LCD to display its images.
- ◆ FORMAT  
Signal output conforms to window size of the display in particular resolution. Resolution – 1024x768, 1280x768, 1360x768  
**How to setup:** 1.Select true resolution format. 2.Return Geometry item press “AUTO” once.

## DVI input

When DVI input is selected, the following OSD menu will be displayed when the MENU button is pressed.



### 1. GEOMETRY

Not available under DVI input.

### 2. PICTURE

#### ◆ CONTRAST

Adjusts the contrast between bright / dark graphics and text.

#### ◆ BRIGHTNESS

Adjust brightness of the screen.

#### ◆ COLOR TEMP.

Select color temperature among High, Middle, Low, or User modes.

#### ◆ R GAIN

Adjusts how much red color is in the display.

#### ◆ G GAIN

Adjusts how much green color is in the display.

#### ◆ B GAIN

Adjusts how much blue color is in the display.

#### ◆ RECALL

Reset the parameters to original factory settings.

### 3. AUDIO

- ◆ BASS

Adjusts the bass level of your TV speakers.

- ◆ TREBLE

Adjusts the treble level of your TV speakers.

- ◆ BALANCE

Adjusts the balance (left to right) of your TV speakers.

- ◆ LOUDNESS

Enhanced Bass and Treble strength.

**Loudness Caution :** Because the loudness option enhances bass sound effects, the possibility of X20's speaker popping increases greatly because of different sound signals received. Our standard signal to the X20's speaker is 500mVrms but with different channels browsed or different sound cards, the output might send out 1Vrms, therefore increases the possibility of popping the X20's speaker. Please make sure to adjust the volume to below 40 when the popping occurs.

- ◆ RECALL

Reset the parameters to original factory settings.

### 4. SYSTEM

- ◆ LANGUAGE

Chooses the language between English and French for the OSD menu

- ◆ LAMP

Adjusts how bright you want the LCD to display its images

- ◆ FORMAT

Not available under DVI input.

# **Rating Explained**

## **General Operation**

To block channels you don't want your kids to watch, you can filter them with the ratings function. MPAA lets you control ratings for movies you allow your kids to watch on the TV. For regular TV sitcoms or series you can use USTV settings. USTV settings lets you filter what content you want each age level, TV-Y, to TV-MA (refer to definitions below) to be able to watch. Look at the rolls you will see each age level. The columns consists of different content representations (refer to definitions below). Set the blocking on each age limit by high lighting the corresponding column and press ENTER. You can unblock by re-pressing the ENTER button at the same location. After you have finished setting ratings up, press MENU to exit.

### **G (MPAA) / TV-Y –For All Children**

This program is designed to be appropriate for all children. Whether animated or live-action, the themes and elements in this program are specifically designed for a very young audience, including children from ages 2-6. This program is not expected to frighten younger children.

### **PG (MPAA) / TV-Y7– Directed to Older Children**

This program is designed for children age 7 and above. It may be more appropriate for children who have acquired the developmental skills needed to distinguish between make-believe and reality. Themes and elements in this program may include mild fantasy violence or comedic violence, or may frighten children under the age of 7. Therefore, parents may want to consider the suitability of this program for their very young children.

Note: For those programs where fantasy violence may be more intense or more combative than other programs in this category, such programs will be designated TV-Y7-FV.

### **PG-13 (MPAA) / TV-G – General Audience**

Most parents would find this program suitable for all ages. Although this rating does not signify a program designed specifically for children, most parents may let younger children watch this program unattended. It contains little or no violence, no strong

language and little or no sexual dialogue or situations.

### **R (MPAA) / TV-PG – Parental Guidance Suggested**

This program contains material that parents may find unsuitable for younger children. Many parents may want to watch it with their younger children. The theme itself may call for parental guidance and/or the program contains one or more of the following: moderate violence (V), some sexual situations (S), infrequent coarse language (L), or some suggestive dialogue (D).

### **NC-17 (MPAA) / TV-14 – Parents Strongly Cautioned**

This program contains some material that many parents would find unsuitable for children under 14 years of age. Parents are strongly urged to exercise greater care in monitoring this program and are cautioned against letting children under the age of 14 watch unattended. This program contains one or more of the following: intense violence (V), intense sexual situations (S), strong coarse language (L), or intensely suggestive dialogue (D).

### **X (MPAA) / TV-MA – Mature Audience Only**

This program is specifically designed to be viewed by adults and therefore may be unsuitable for children under 17. This program contains one or more of the following: graphic violence (V), explicit sexual activity (S), or crude indecent language (L).

### **TV program description**

**FV** - Fantasy Violence

**V** - Violence

**S** - Sexual Situations

**L** - Adult Language

**D** - Sexually Suggestive Dialog

# Other Information

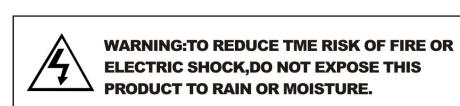
## Cleaning the LCD TV

- Wipe the LCD TV with soft or dry cloth.
- Do not use solvent or methylbenzene. Harsh chemicals may damage your LCD TV.
- Make sure the LCD TV is unplugged before you clean it.

## Warning

### BEFORE PLUGGING IN THE UNIT FOR THE FIRST TIME, READ THE FOLLOWING SECTION CAREFULLY.

The voltage of the available power supply differs according to country or region. Be sure that the power supply voltage of the area where this unit will be used meets the required voltage (e.g., AC 230V, 50Hz, or AC 120V, 60Hz) written on the rear panel.



The lightning flash with arrow head symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance(servicing) instructions in the literature accompanying the appliance.

## Troubleshooting

The following table contains the common problems and the solutions to these problems.

Please check this list before you contact technicians.

Problems	Reasons	Solutions
No picture	1. Did you connect the power cord? 2. Did you turn on the power? 3. Is the signal cable connected correctly? 4. Still no video ?	1. Connect power cord correctly. 2. Turn on power 3. Connect signal cable correctly. 4. Check your source by pressing the source button and cycle thru all the input ports.
Abnormal colors	Is the signal cable connected correctly?	■ Properly connect the signal cable. ■ Color cables should match the colored port ie. red to red, green to green and blue to blue.
Picture too dark	Are brightness and contrast set at the lowest level?	Adjust brightness and contrast.
Audio only, no picture	1. Is input signal cable connected correctly? 2. Is the TV signal too weak?	1. Check the signal cable connection. Make sure your video cable is in the right group as the audio cable. 2. TV-RF signal must not be lower than 50 dB.
Picture only, no audio	1. Is signal cable connected correctly? 2. Is the audio volume set at the lowest level? 3. Is audio signal cable not	1. Connect signal cable correctly. 2. Adjust volume to proper level. 3. Connect audio cable

<b>Problems</b>	<b>Reasons</b>	<b>Solutions</b>
	connected? 4. Is the TV signal cable too weak?	correctly. 4. TV-RF signal must not be lower than 50 dB.
Remote controller does not work	1. Is the battery dead? 2. Is there any interference from static or thunder?	1. Change battery. 2. Turn off power for 10 seconds, and then turn the power back on

<b>Problems</b>	<b>Possible solutions</b>
Can not receive UHF	Change the signal line to other input-end; make sure your antenna is capable of receiving UHF.
Can not receive sufficient channels through antenna	Please use the channel scanning function to increase the number of channels
No colors	Please adjust the color setup, and make sure your signal cable is tightly connected.
Blinking picture accompanied by signal box image	Check the connection of antenna/signal cable
Broken lines or segments	Adjust antenna. Keep the TV away from noise sources such as neon lights, and hair dryer.
Certain TV channels are blocked	Please use the channel scanning function or v-chip function to unblock.
Can not access a picture menu	▪Make sure your Picture is on “User Mode” by pressing the “Picture” button until the upper left hand corner says “User Mode”.

<b>Problems</b>	<b>Possible solutions</b>
Universal Remote Code	This television is designed with SONY television universal remote codes.
TV has colors of lines across the screen	<ul style="list-style-type: none"> <li>▪ This is a big LCD screen, it takes time for electricity to charge up to power the screen and takes time for the large screen to deplete all its residual electricity.</li> <li>▪ Please do not turn the TV on and off really quickly.</li> <li>▪ Between the time which you turn off the TV and the time which you turn it on, there should be at least 50 seconds to 70 seconds.</li> </ul>
TV is turned on, stand by light is green but no picture	<ul style="list-style-type: none"> <li>▪ This is a big LCD screen, and needs time to warm up to show the picture.</li> <li>▪ Please wait for 15-30 seconds for the picture to show up.</li> </ul>
No Picture on PC (DVI port)	<ul style="list-style-type: none"> <li>▪ Is your video card's DVI port turned off by default?</li> <li>▪ Go into your video card's advance menu to make sure 2nd monitor / DVI port is turned on.</li> </ul>
No Sound on PC	Make sure your green connector head audio cable is connected.
Satellite / Digital Cable box says HDCP not compatible.	<ul style="list-style-type: none"> <li>▪ Reboot your satellite / digital cable box by turning them off then unplugging the power cord.</li> <li>▪ Wait for at least 1-3 minutes and plug them back into the wall and turn on the power.</li> </ul>
Satellite / Digital Cable box has no video on HDMI port.	<ul style="list-style-type: none"> <li>▪ Make sure you're using the HDMI-&gt;HDMI cable.</li> <li>▪ If you're using the cable we've included in the box, then you should set your source to HDCP or DVI.</li> </ul>
Cannot get 1366x768 on PC.	Although the screen's max resolution is 1366x768. No video card maker can support that resolution. The widely supported resolution is 1360x768, please use that as your resolution.

# Appendix

## FCC Compliance Statement

This device complies with Part 15 of the FCC Rules.

Operation is subject to the following conditions:

- (1) This device may not cause harmful interference
- (2) This device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

\*Reorient or relocate the receiving antenna.

\*Increase the separation between the equipment and the receiver.

\*Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Caution: To comply with the limits for an FCC Class B computing device,  
always use the signal cord and power cord supplied with this unit.

The Federal communications Commission warns that changes or modifications to the unit  
not expressly approved by the party responsible for compliance could void the user's  
authority to operate the equipment.

## **European Notice**

Products with the CE marking comply with both the EMC Directive (89/336/EEC),  
(93/68/EEC) and the Low Voltage Directive (72/23/EEC) issued by the Commission of  
the European Community.